



Pennant Walters

GLANLLYNFI GARTH WIND FARM

Draft Environmental Statement

Appendix 6E - LANDMAP Landscape Habitat
Aspect Areas: Assessment of Effects



Contents

1.	Introduction	1
1.1	Overview	1
2.	Assessment of effects	2
2.1	LHAA Receptors	2

	Table 6E.1 Assessment of effects: LHAAs	2
--	---	---

1. Introduction

1.1 Overview

- 1.1.1 The filtering process described in **Appendix 6B** identified ten Landscape Habitats Aspect Areas (LHAAs) that should be carried through to the assessment of effects as follows:
- CYNONLH004;
 - CYNONLH005;
 - CYNONLH007;
 - CYNONLH012;
 - CYNONLH054;
 - CYNONLH057;
 - CYNONLH058;
 - NPTLH028;
 - NPTLH042; and
 - NPTLH098.
- 1.1.2 The landscape sensitivity of the LHAAs to the Proposed Development is presented in **Appendix 6C** in accordance with the methodology set out in **Appendix 6A. Table 6E.1** in **Section 2** of this Appendix assesses the magnitude of change which is likely to arise as a consequence of the Proposed Development before determining the level and type of effect and its significance.
- 1.1.3 The geographical extent and location of the LHAAs scoped into the LVIA in relation to the Proposed Development is illustrated in **Figure 6.8b**.

2. Assessment of effects

2.1 LHAA Receptors

Table 6E.1 Assessment of effects: LHAAs

LHAA	Assessment
CYNONLH004 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of High value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium. <u>Assessment: Proposed Development Construction Phase</u> The Proposed Development would be located within this LHAA which comprises a small (229 ha) area of “<i>Dry heath with areas of wet heath/acid grassland mosaic and bracken on lower slopes</i>”, with the LANDMAP Survey recording dominant habitats as being 5% Semi-improved Acid Grassland, 10% Marshy Grassland, 8% Bracken, 52% Dry Acid Heath and 16% Wet Heath. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from across all of the LHAA, where up to eight turbines may be visible. There are no operational turbines within the LHAA. The presence of the Proposed Development would have new direct effects within the LHAA which has high ecological value, as recorded on the LANDMAP Survey. The direct loss of habitat within this LHAA would be associated with the footprint of four of the eight proposed turbines (T1-T4), turbine hardstanding areas, new internal access tracks, a short section of grid connection and associated ancillary development (temporary construction compound and substation). This would require the long-term removal of habitat as well as the temporary removal of habitat from within footprint of the construction compound, which combined represents a small proportion of habitat within the LHAA. Elsewhere within the LHAA, the presence of the construction activities would not significantly alter the present landscape function of the remaining areas of habitat or the way in which the large areas of heath are perceived. Based on these considerations, the magnitude of change would be Medium-Low within the eastern half of LHAA CYNONLH004, reducing to Low elsewhere within the LHAA and landscape effects would be Moderate to Moderate/Minor and Not Significant. The nature of these effects would be short-term, direct and indirect and adverse. <u>Assessment: Proposed Development Operational Phase</u> A small proportion of the habitats removed during the construction phase would be reinstated post construction within the construction compound and internal access track verges. The loss of habitat required to accommodate the Proposed Development would continue to represent a small proportion of the landscape habitat within the LHAA and the remainder would continue to fulfil its present landscape function. The habitats across the Development Site are simple and represent a broadly consistent groundcover against which the operational turbines would be perceived. The magnitude of change would continue to be Medium-Low within the eastern half of the LHAA, with a Low magnitude of change occurring within the remaining western and southern halves of this landscape unit. Landscape effects would be locally Moderate to Moderate/Minor and Not Significant. The nature of these effects would be long-term, direct and indirect and adverse.

LHAA	Assessment
CYNONLH005 (unnamed)	<u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> There are no operational or consented schemes sited within this LHAA. Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to separation distance (Very Low magnitude to Zero). The additional and combined effect would be Moderate to Moderate/Minor and Not Significant as a consequence of the Proposed Development. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
	<u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> There are no planning application or scoping schemes sited within this LHAA. Other planning application and scoping wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to separation distance (Very Low magnitude to Zero). The additional and combined effect would remain Moderate to Moderate/Minor and Not Significant and the nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of Medium value and of Low susceptibility. The overall sensitivity is therefore considered to be Low. <u>Assessment: Proposed Development Construction Phase</u> The proposed access track would be routed through this LHAA which comprises four discrete areas of “<i>Conifer plantation with patches of dry heath and marshy grassland after area is felled</i>”, separated by other LHAAs. One sub-area covers Caerau and Garw Forests to the east of Maesteg and coincides with the Development Site boundary, whilst two smaller areas cover forestry on Garn Wen and the eastern edge of Mynydd Bach and Mynydd Margam to the west of Maesteg and lie outside of the Development Site boundary. The final sub-area covers an area of coniferous woodland to the north of Nant-y-moel. The mosaic of dominant habitat comprises “<i>80% Semi-natural Coniferous Woodland, 4% Semi-improved Acid Grassland, 1% Improved Grassland, 2% Dry Acid Heath, and 5% Spoil</i>”. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would not be visible from within the area of LHAA which lies to the north of Nant-y-moel, whilst areas of theoretical visibility occur across the remaining three sub-areas. Three turbines within the operational Llynfi Afan Renewable Energy Park are sited within this LHAA. The proposed access route would utilise sections of existing Forestry access tracks through the Caerau and Garw Forests. These existing tracks may require upgrading, subject to confirmation. Any localised tree clearance to ensure sufficient overrun and over sail, would represent an activity which already occurs within forests, which are subject to periodic felling and restocking and this potential localised loss would represent a very small proportion of the dominant habitat within this large 1,371 ha LHAA. The presence of elevated crane activity during the erection of the turbines has the potential to be evident in outward views from localised open areas within the LHAA but would not overtly contrast with the simple blocks of planted coniferous woodland which would continue to fulfil its present landscape function during the construction phase. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be short-term, direct and indirect and neutral.

LHAA	Assessment
	<u>Assessment: Proposed Development Operational Phase</u> Whilst the blade tip ZTV in Figure 6.8b indicates potential visibility from within a large proportion of this LHAA, in reality, the coniferous forestry would restrict outwards views and visibility is likely to be reduced to open areas within the LHAA or areas of tree clearance, the geographical location and extent of which is likely to vary throughout the 30-year operational phase as areas are felled and the trees within restocked areas gradually mature. Whilst sited just beyond the southern and western boundaries of the Caerau and Garw Forests, the presence of the proposed turbines above the intervening coniferous forestry would not significantly alter the present landscape function of the habitats within this LHAA or the way in which the large, uniform areas of coniferous woodland are perceived. The existing Forestry access tracks would continue to be used occasionally throughout the operational phase during any maintenance operations associated with the proposed turbines and associated infrastructure. The overall magnitude of change within this LHAA would be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be long-term, direct and indirect and neutral. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> Turbines within the operational Llynfi Afan Renewable Energy Park are sited within this LHAA and would have a direct, partially characterising influence, which is tempered by the extensive areas of predominantly uniform coniferous woodland habitat (Medium-Low magnitude). Other operational (remaining Llynfi Afan turbines) and consented (Foel Trawsnant and Upper Ogmere) wind farms which lie adjacent or in close proximity to the LHAA, would have limited influence due to the screening provided by the woodland (Low magnitude). Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived (Very Low magnitude to Zero). The additional effect would remain Negligible and Not Significant, whilst the combined effects would be Moderate/Minor to Minor and Not Significant as a consequence of the operational Llynfi Afan Renewable Energy Park. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance and the screening provided by the coniferous woodland which is the dominant habitat within the LHAA. The additional effect would remain Negligible and Not Significant, whilst the combined effects would also remain Moderate/Minor and Not Significant as a consequence of the operational Llynfi Afan Renewable Energy Park. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
CYNONLH007 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of High value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium. <u>Assessment: Proposed Development Construction Phase</u> An approximately 750m section of the proposed access track would be routed through this LHAA, which covers an area of 2,752 ha and comprises three discrete areas of “<i>Unenclosed uplands with marshy / acid grassland on ridgetops, bilberry heath on steeper slopes</i>”. The extensive area of LHAA which extends across Mynydd Llangeinwyr, Mynydd yr Aber and Mynydd Maes-teg would not be directly affected by

LHAA	Assessment
	the Proposed Development, with the access route crossing one of two small, triangular shaped areas of LHAA located between NPTLH042 to the north and CYNONLH005 to the south. The mosaic of dominant habitats comprises 30% Unimproved Acid Grassland, 25% Marshy Grassland, 15% Dry Acid Heath, 15% Dry Heath/Acid Grassland Mosaic and 10% Bracken. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from across the majority of the LHAA. Turbines within the operational Pant-Y-Wal Wind Farm are sited within this LHAA. The proposed access route would utilise a short section of existing track which provides access to the southern three turbines within the Llynfi Afan Renewable Energy Park with minimal habitat loss. The presence of elevated crane activity during the erection of the turbines has the potential to be evident in outward views from within the LHAA but would not overtly contrast with the unenclosed, simple nature of the grassland habitats which dominate this LHAA, which would continue to fulfil their present landscape function during the construction phase. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Minor and Not Significant to None. The nature of these effects would be short-term, direct and indirect and adverse. <u>Assessment: Proposed Development Operational Phase</u> The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from within a large proportion of this LHAA with up to eight turbines being visible at distances of between approximately 1.7 km and 9 km. However, this presence would not significantly alter the perception of the landscape habitats within LHAA CYNONLH007, particularly given the unenclosed, simple appearance of the grassland habitats which occur extensively across areas which coincide with the ZTV. All habitats recorded within this LHAA would continue to fulfil their present landscape function. The magnitude of change would not exceed Very Low, and landscape effects would be Minor and Not Significant to None. The nature of these effects would be long-term, indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> The operational Pant-Y-Wal Wind Farm and consented Upper Ogmere Wind Farm are located within this LHAA, and would have a direct, partially characterising influence through the loss of habitat from within the turbine hardstanding areas and internal access tracks (Medium-Low magnitude). The operational Llynfi Afan and Fforch Nest Wind Farms lie adjacent to the LHAA and would have limited influence on the perception of the simple, broadly uniform appearance of the grassland habitats (Low magnitude). Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to increased separation distances (Very Low to Zero magnitude). The additional effect would remain Minor to Negligible and Not Significant, whilst the combined effects would be up to Moderate to Moderate/Minor (locally) and Not Significant as a consequence of the operational Pant-Y-Wal and consented Upper Ogmere Wind Farms. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance (Very Low to Zero magnitude). The additional effect would remain Minor and Not Significant, whilst the combined effects would also remain Moderate to Moderate/Minor and Not Significant as a consequence of the operational

LHAA	Assessment
CYNONLH012 (unnamed)	operational Pant-Y-Wal and consented Upper Ogmere Wind Farms. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
	As set out in Table 6C.7 of Appendix 6C , this LHAA is assessed as being of Medium value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium-Low.
	<u>Assessment: Proposed Development Construction Phase</u> The Proposed Development would be located within this LHAA which comprises a moderate sized (402 ha) area which is defined as a “<i>Mixed area of improved grassland(2/3rds) with bracken, dry/wet heath, acid grassland mosaic, semi-improved neutral, marshy grassland and patchy broadleaved woodland</i>” in the LANDMAP Survey. This records dominant habitats as being 8% Semi-improved Acid Grassland, 67% Improved Grassland, 11% Bracken, 3% Dry Acid Heath and 3% Dry Heath/Acid Grassland Mosaic. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from across all of the LHAA, where up to eight turbines may be visible. There are no operational turbines within the LHAA.
	The presence of the Proposed Development would have new direct effects within the LHAA which has medium ecological value, as recorded on the LANDMAP Survey. The direct loss of habitat within this LHAA would be associated with the footprint of four of the eight proposed turbines (T5-T8), turbine hardstanding areas, new internal access tracks and associated ancillary development (temporary construction compound and substation). This would require the long-term removal of habitat together with the temporary removal of habitat from within footprint of the construction compound, which combined represent a small proportion of habitat within the LHAA. Elsewhere within the LHAA, the presence of the construction activities would not significantly alter the present landscape function of the remaining areas of habitat or the way in which the large areas of grassland are perceived, although a slightly greater degree of contrast may be perceived from within the southern fringes of the LHAA, where there is increased complexity of habitats including woodland and a smaller scale field pattern. Based on these considerations, the magnitude of change would be Medium-Low within the north-eastern part of LHAA CYNONLH012, reducing to Low elsewhere within the LHAA and landscape effects would be Moderate to Minor and Not Significant. The nature of these effects would be short-term, direct and indirect and adverse.
CYNONLH012 (unnamed)	<u>Assessment: Proposed Development Operational Phase</u> A small proportion of the habitats removed during the construction phase would be reinstated post construction within the construction compound and internal access track verges. The loss of habitat required to accommodate the Proposed Development would continue to represent a small proportion of the landscape habitat within the LHAA and the remainder would continue to fulfil its present landscape function. Whilst the majority of the habitats within the LHAA are simple and represent a broadly consistent groundcover against which the operational turbines would be perceived, a slightly greater degree of contrast may be perceived from within the southern fringes of the LHAA, where there is increased complexity of habitats including woodland and a smaller scale field pattern. The magnitude of change would continue to be Medium-Low within the north-eastern and southernmost parts of the LHAA, with a Low magnitude of change occurring within the remaining western parts of this landscape unit. Landscape effects would be locally Moderate to Minor and Not Significant. The nature of these effects would be long-term, direct and indirect and adverse.

LHAA	Assessment
	<u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> There are no operational or consented schemes sited within this LHAA. Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to separation distance and the levels of screening provided by coniferous forestry to the east of this LHAA (Very Low magnitude to Zero). The additional and combined effect would be Moderate to Minor and Not Significant as a consequence of the Proposed Development. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> There are no planning application or scoping schemes sited within this LHAA. Other planning application and scoping wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to separation distance and the levels of screening provided by coniferous forestry to the east of this LHAA (Very Low magnitude to Zero). The additional and combined effect would remain Moderate to Minor and Not Significant and the nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
CYNONLH054 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of High value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium. <u>Assessment: Proposed Development Construction Phase</u> This LHAA comprises a single unit of land, which covers a “<i>Post industrial landscape now reverted to acid grassland, dry and wet heath, marshy grassland mosaic with occasional flushes</i>”. The mosaic of dominant habitat comprises “<i>20% Unimproved Acid Grassland, 10% Semi-improved Acid Grassland, 35% Marshy Grassland, 8% Dry Heath/Acid Grassland Mosaic and 7% Wet Heath/Acid Grassland Mosaic</i>”. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would not be visible from within the LHAA. Reference to Figure 6.6 indicates that there are no other wind turbines within LHAA CYNONLH054. A short section of the proposed access track from the A4061 would pass through the western fringes of the LHAA, as indicated on Figure 6.8b. This would utilise an existing section of track, thereby minimising the direct loss of habitat, which would be restricted to any localised clearance to ensure sufficient overrun and blade clearance (over sail). This potential localised loss would represent a very small proportion of the habitats within this 137.7 ha LHAA. The overall magnitude of change within this LHAA would be Very Low to Zero and landscape effects would be Minor and Not Significant to None. The nature of these effects would be short-term, direct and adverse. <u>Assessment: Proposed Development Operational Phase</u> Any localised removal of vegetation which may be required to accommodate the delivery of the proposed turbine components would be reinstated post construction and the existing access road which serves the forests would continue the role it plays under baseline conditions. There would be no views of the proposed turbines and the habitats recorded within this LHAA would therefore continue to fulfil their present landscape function and would maintain their appearance. Based on these considerations, the magnitude of change would be Zero and no cumulative effects could occur.

LHAA	Assessment
CYNONLH057 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of Medium value and of Low susceptibility. The overall sensitivity is therefore considered to be Low. <u>Assessment: Proposed Development Construction Phase</u> The proposed access track would be routed through this LHAA which comprises four discrete areas of coniferous woodland habitat separated by other LHAAs. One sub-area lies to the north of Llyn Fawr (and coincides with the Development Site boundary) whilst two sub-areas lie to the east and west of the A4061 of the Development Site. The final sub-area covers an area of coniferous woodland to the west of Treorchy. The mosaic of dominant habitat comprises “1% <i>Semi-natural Broadleaved Woodland</i>, 74% <i>Planted Coniferous Woodland</i>; 10% <i>Felled Mixed Woodland</i>, 7% <i>Unimproved Acid Grassland</i> and 2% <i>Bare Ground</i>”. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would not be visible from within the areas of LHAA which lie to the north of Llyn Fawr and west of Treorchy, whilst areas of theoretical visibility occur across areas to the east and west of the A4061. Seventeen turbines within the operational Pen y Cymoedd wind farm are sited within this LHAA. The proposed access route would utilise sections of existing Forestry access tracks through the sub-area which lies to the north of Llyn Fawr, with short sections of Forestry access tracks along the western edge of the area of LHAA which lies to the west of the A4061, also forming part of the Proposed Development. These existing tracks may require upgrading. Any localised tree clearance to ensure sufficient overrun and over sail, would represent an activity which already occurs within forests, which are subject to periodic felling and restocking and this potential localised loss would represent a very small proportion of the dominant habitat within this large 2,014 ha LHAA. The presence of elevated crane activity during the erection of the turbines has the potential to be evident in outward views from localised open areas within the LHAA but would not overtly contrast with the simple blocks of planted coniferous woodland which would continue to fulfil its present landscape function during the construction phase. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be short-term, direct and indirect and neutral. <u>Assessment: Proposed Development Operational Phase</u> Whilst the blade tip ZTV in Figure 6.8b indicates potential visibility from within this LHAA, in reality, the coniferous forestry would restrict outwards views and visibility is likely to be reduced to areas of tree clearance, the geographical location and extent of which is likely to be variable throughout the 30-year operational phase as areas are felled and the trees within restocked areas gradually mature. The presence of the proposed turbines at distances in excess of approximately 6 km would not alter the present landscape function of the habitats within this LHAA or the way in which they are perceived. The existing Forestry access tracks would be used occasionally throughout the operational phase during any maintenance operations associated with the proposed turbines and associated infrastructure. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be long-term, direct and indirect and neutral. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> The 17 turbines within the operational Pen y Cymoedd wind farm are sited within this LHAA and would have a direct, partial characterising influence, which is tempered by the extensive areas of uniform coniferous woodland habitat (Medium-Low

LHAA	Assessment
	magnitude). Other operational (Maerdy and Mynydd Bwllfa) and consented (Abergorki) wind farms which lie adjacent or in close proximity to the area of LHAA which lies to the east of the A4061, would have limited influence due to the screening provided by the woodland (Low magnitude). Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to increased separation distances (Very Low to Zero magnitude). The additional effect would remain Negligible and Not Significant, whilst the combined effects would be Moderate/Minor and Not Significant as a consequence of the operational Pen y Cymoedd wind farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance and the screening provided by the coniferous woodland which is the dominant habitat within the LHAA (Very Low to Zero magnitude). The additional effect would remain Negligible and Not Significant, whilst the combined effects would also remain Moderate/Minor and Not Significant as a consequence of the operational Pen y Cymoedd wind farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
CYNONLH058 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of High value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium. <u>Assessment: Proposed Development Construction Phase</u> This LHAA lies adjacent to but outside of the Development Site and comprises a single unit of land which covers “<i>Unenclosed upland Molinia marshy grassland, unimproved acid grassland with some scree, drier areas of bilberry heath and open water at Llyn Fawr</i>”. No component of the Proposed Development would directly impact on the habitats within this LHAA. Elevated crane activity may have a presence from within a small proportion of the landscape at distances in excess of 10 km but would not significantly alter the way in which the habitats within this LHAA are perceived and the habitats recorded would continue to fulfil their present landscape function. Based on these considerations, the magnitude of change would not exceed Very Low (more commonly Zero), and landscape effects would be Minor and Not Significant to None. The nature of these effects would be short-term, indirect and neutral. <u>Assessment: Proposed Development Operational Phase</u> The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from within a small proportion of this LHAA with 1-2 hubs being visible from within a smaller, localised area on Hirwaun Common. This distant presence of the turbines would not significantly alter the perception of the landscape habitats, particularly given the simple, uniform appearance of the grassland habitat across areas which coincide with the ZTV. All habitats recorded within this LHAA would continue to fulfil their present landscape function. The magnitude of change would not exceed Very Low (more commonly Zero), and landscape effects would be Minor and Not Significant to None. The nature of these effects would be long-term, indirect and neutral. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> Nine turbines within the operational Mynydd Bwllfa Wind Farm are located within the LHAA, where the corresponding loss of habitat from the turbine hardstanding areas,

LHAA	Assessment
	and internal access tracks can be observed on aerial photography. As a consequence, the magnitude of change would be Medium-Low within this existing wind farm. Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived (Very Low to Zero magnitude). The additional effect would remain Minor and Not Significant, whilst the combined effects would be Moderate to Moderate/Minor and Not Significant as a consequence of the operational Mynydd Bwllfa Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance (Very Low to Zero magnitude). The additional effect would remain Minor and Not Significant, whilst the combined effects would also remain Moderate to Moderate/Minor and Not Significant as a consequence of the operational Mynydd Bwllfa Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
NPTLH028 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of High value and of High-Medium susceptibility. The overall sensitivity is therefore considered to be High-Medium. <u>Assessment: Proposed Development Construction Phase</u> This LHAA comprises a single unit of land, which covers a “<i>Wooded upland river system in steep glacial valley, forming lakes in deep hollows surrounded by acid grassland and acid flushes</i>”. The mosaic of dominant habitat comprises Semi-natural Broadleaved Woodland as a major component with Unimproved Acid Grassland, Standing Water and Running Water forming significant components and Bracken featuring as a minor component. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would not be visible from within the LHAA. Reference to Figure 6.6 indicates that there are no other wind turbines within LHAA NPTLH028. A short (approximately 200m) section of the proposed access track would pass through the southern half of the LHAA, as indicated on Figure 6.8b. This would utilise an existing section of track which passes through the Cwm Gwrelych and Nant Llyn Fach Streams Site of Scientific Interest (SSSI), which aerial photography indicates has minimal tree cover either side, thereby minimising the direct loss of habitat. The overall magnitude of change within this LHAA would not exceed Very Low (more commonly Zero) and landscape effects would be Moderate/Minor to Minor and Not Significant to None. The nature of these effects would be short-term, direct and adverse. <u>Assessment: Proposed Development Operational Phase</u> The existing access road which serves the forests would continue the role it plays under baseline conditions, with infrequent use from vehicles accessing the Proposed Development during maintenance operations associated with the turbines and ancillary infrastructure. There would be no views of the proposed turbines and the habitats recorded within this LHAA would therefore continue to fulfil their present landscape function and the way in which they are perceived. Based on these considerations, the magnitude of change would be Zero and no cumulative effects could occur.

LHAA	Assessment
NPTLH042 (unnamed)	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of Medium value and of Medium-Low susceptibility. The overall sensitivity is therefore considered to be Medium-Low. <u>Assessment: Proposed Development Construction Phase</u> This LHAA comprises a single unit of land, which covers an “<i>area of upland acid grassland and mire communities</i>”. The mosaic of dominant habitat comprises Unimproved Acid Grassland as the main component with Marshy Grassland forming a significant component and Bracken, Acid/Neutral Flush and Acid/Neutral Scree featuring as minor components. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from within a small proportion of the LHAA. Nine of the 12 turbines which form the Llynfi Afan Renewable Energy Park lie within this LHAA. A section of the proposed access track would pass through the LHAA, as indicated on Figure 6.8b. This would utilise an existing section of track which serves the Llynfi Afan turbine with minimal habitat loss. Elevated crane activity may have a presence above the intervening forestry from within a small proportion of the landscape at distances in excess of 2 km, but would not significantly alter the way in which the habitats within this LHAA are perceived and the habitats recorded would continue to fulfil their present landscape function. The overall magnitude of change within this LHAA would not exceed Very Low and landscape effects would be Minor to Negligible and Not Significant to None. The nature of these effects would be short-term, direct and indirect and adverse. <u>Assessment: Proposed Development Operational Phase</u> The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would potentially be visible from within a small proportion of this LHAA with up to eight turbines being visible from across the southern fringes of the area and up to four turbines being visible from the north-western fringes. This presence of the turbines at distances in excess of 2 km would not significantly alter the perception of the landscape habitats within LHAA NPTLH042, particularly given the simple, uniform appearance of the grassland habitats which occur within areas which coincide with the ZTV. All habitats recorded within this LHAA would continue to fulfil their present landscape function. The magnitude of change would not exceed Very Low (more commonly Zero), and landscape effects would be Minor to Negligible and Not Significant to None. The nature of these effects would be long-term, indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> Nine turbines within the operational Llynfi Afan Wind Farm are located within the LHAA, and would have a direct, partially characterising influence through the loss of habitat from within the turbine hardstanding areas and internal access tracks which can be observed on aerial photography (Medium-Low magnitude). The consented Upper Ogmere wind farm lies adjacent to the LHAA and would have limited influence on the perception of the simple, uniform appearance of the grassland habitats (Low magnitude). Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived due to increased separation distances (Very Low to Zero magnitude). The additional effect would remain Minor to Negligible and Not Significant, whilst the combined effects would be up to Moderate to Moderate/Minor (locally) and Not Significant as a consequence of the operational Llynfi Afan Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.

LHAA	Assessment
NPTLH098 (unnamed)	<u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance. The additional effect would remain Minor to Negligible and Not Significant, whilst the combined effects would continue to locally be Moderate to Moderate/Minor and Not Significant as a consequence of the operational Llynfi Afan Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.
	As set out in Table 6C.7 of Appendix 6C, this LHAA is assessed as being of Medium value and of Low susceptibility. The overall sensitivity is therefore considered to be Low.
	<u>Assessment: Proposed Development Construction Phase</u> The proposed access track would be routed through this LHAA which comprises three discrete areas of coniferous woodland habitat separated by other LHAAs. One small sub-area lies to the south of Glyn-neath (and outside of the Development Site boundary) whilst a second small area lies to the north-east of Llyn Fach. The final sub-area covers an extensive area of coniferous woodland which extends from the small settlement of Cwmgwrach in the north, to the settlements of Efail Fach and Pontrhydfen on the B4287 in the south-west. The mosaic of dominant habitat comprises Planted Coniferous Woodland as the main component with Semi-natural Broadleaved Woodland, Semi-improved Acid Grassland, Bracken and Acid/Neutral Flush minor components of the habitat mix. The blade tip ZTV in Figure 6.8b demonstrates that the Proposed Development would not be visible from within the two small sub-areas of LHAA, whilst theoretical visibility occurs across a moderate proportion of the extensive area of LHAA. Turbines within the operational Pen y Cymoedd wind farm are sited within this LHAA. The proposed access route would utilise a short section of existing Forestry access track through the sub-area which lies to the north-east of Llyn Fach, with the majority of the access route which serves the Proposed Development routed along sections of Forestry access tracks within the northern and along the western edge of the extensive area of LHAA. These existing tracks may require upgrading, subject to confirmation. Any localised tree clearance to ensure sufficient overrun and oversail, would represent an activity which already occurs within forests, which are subject to periodic felling and restocking and this potential localised loss would represent a very small proportion of the dominant habitat within this extensive LHAA. The presence of elevated crane activity during the erection of the turbines has the potential to be evident in outward views from localised open areas within the LHAA but would not overtly contrast with the simple blocks of planted coniferous woodland which would continue to fulfil its present landscape function during the construction phase. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be short-term, direct and indirect and neutral. <u>Assessment: Proposed Development Operational Phase</u> Whilst the blade tip ZTV in Figure 6.8b indicates potential visibility from within a moderate proportion of this LHAA, in reality, the coniferous forestry would restrict outwards views and visibility is likely to be reduced to open areas within the LHAA or areas of tree clearance, the geographical location and extent of which is likely to be variable throughout the 30-year operational phase as areas are felled and the trees within restocked areas gradually mature. The presence of the proposed turbines at minimum distances of approximately 3 km would not significantly alter the present landscape function of the habitats within this LHAA or the way in which the large,

LHAA	Assessment
	uniform areas of coniferous woodland are perceived. The existing Forestry access tracks would be used occasionally throughout the operational phase during any maintenance operations associated with the proposed turbines and associated infrastructure. The overall magnitude of change within this LHAA would therefore be Very Low to Zero and landscape effects would be Negligible and Not Significant to None. The nature of these effects would be long-term, direct and indirect and neutral. <u>Cumulative Assessment: Operational + Consented Sites + Proposed Development</u> Turbines within the operational Pen y Cymoedd wind farm are sited within this LHAA and would have a direct, partially characterising influence, which is tempered by the extensive areas of uniform coniferous woodland habitat (Medium-Low magnitude). Other operational (Ffynnon Oer and Llynfi Afan) and consented (Mynydd Fforch-Dwm, Foel Trawsnant and Upper Ogmored) wind farms which lie adjacent or in close proximity to the LHAA, would have limited influence due to the screening provided by the woodland (Low magnitude). Other operational and consented wind energy schemes within the Study Area would have very limited to no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived. The additional effect would remain Negligible and Not Significant, whilst the combined effects would be Moderate/Minor and Not Significant as a consequence of the operational Pen y Cymoedd Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse. <u>Cumulative Assessment: Operational + Consented Sites + Applications + Scoping + Proposed Development</u> Planning Application and Scoping Schemes within the Study Area would have very limited or no characterising influence on the landscape function of the habitats within the LHAA and the way in which they are perceived, as a consequence of the separation distance and the screening provided by the coniferous woodland which is the dominant habitat within the LHAA. The additional effect would remain Negligible and Not Significant, whilst the combined effects would also remain Moderate/Minor and Not Significant as a consequence of the operational Pen y Cymoedd Wind Farm. The nature of these effects would be long-term (reversible), cumulative, direct and indirect and adverse.